According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018 Revised Date: 03.20.2019

(Trade Name) Synthetic Ester Fluid

SECTION 1: Identification

Product identifier

Product name: (Trade Name) Synthetic Ester Fluid

Product code:

Recommended use of the product and restriction on use

Relevant identified uses:

Uses advised against: Not determined or not applicable.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer: United States

I

Emergency telephone number:

United States

SECTION 2: Hazard(s) identification

GHS classification: Not a hazardous substance or mixture

Label elements

Hazard pictograms: None

Signal word: None

Hazard statements: None

Precautionary statements: None

Hazards not otherwise classified: None

SECTION 3: Composition/information on ingredients

There are no substances or mixtures present which are classified as hazardous.

Additional Information:

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 4: First aid measures

Description of first aid measures

General notes:

Not determined or not applicable.

After inhalation:

Page 1 of 8

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018 Page 2 of 8

(Trade Name) Synthetic Ester Fluid

Get medical advice if you feel unwell

If inhaled, remove to fresh air

After skin contact:

Wash with plenty of water / soap and rinse thoroughly

Get medical advice if skin irritation occurs or you feel unwell

After eye contact:

Rinse cautiously with water for several minutes

Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persist, get medical advice/attention

After swallowing:

Rinse mouth and do not induce vomiting

Get medical advice if you feel unwell or concerned

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

May cause minimal irritation or no effect. Any additional important symptoms and effects are described in Section 11: Toxicological information

Delayed symptoms and effects:

Not determined or not applicable.

Immediate medical attention and special treatment

Specific treatment:

Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient

Notes for the doctor:

Not determined or not applicable.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Use Water (fog only), dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam

Unsuitable extinguishing media:

Do not use a water stream as an extinguisher. May spread fire

Specific hazards during fire-fighting:

Thermal decomposition can lead to release of irritating gases and vapors

Special protective equipment for firefighters:

Use typical firefighting equipment, self-contained breathing apparatus, special tightly sealed suit

Special precautions:

Not determined or not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Use appropriate personal protective equipment (see Section 8)

Environmental precautions:

Avoid release into the environment. Prevent from reaching drains, sewer or waterway

Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomaceous earth (clay), acid binders, universal binders)

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018 Page 3 of 8

(Trade Name) Synthetic Ester Fluid

Dispose of contents / container in accordance with local regulations

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

Use appropriate personal protective equipment (see Section 8).

Avoid breathing mist or vapor. Use with adequate ventilation.

Avoid repeated and prolonged skin contact.

Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities:

Store in a cool, well-ventilated area.

Keep container tightly closed when not in use. Protect from atmospheric moisture.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

No occupational exposure limits noted for the ingredient(s).

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Monitoring procedures should be chosen according to the indications set by national authorities or recognized standards.

Appropriate engineering controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Use of local exhaust ventilation should be determined based on operations and if vapors or mist can be generated from heating or spray applications.

Personal protection equipment

Eye and face protection:

Use safety glasses (with side shields).

Skin and body protection:

Hands: Wear impervious gloves. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

Respiratory protection:

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

General hygienic measures:

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

Wash hands before breaks and at the end of work. Wash contaminated clothing before reusing.

SECTION 9: Physical and chemical properties

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018

(Trade Name) Synthetic Ester Fluid

Information on basic physical and chemical properties

Appearance	Liquid, clear
Odor	Characteristic
Odor threshold	Not determined or not available.
рН	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	> 300 °C (estimated)
Flash point (closed cup)	> 264 °C closed cup (Pensky-Martens)
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	<10 -8 mm Hg (estimated)
Vapor density	Not determined or not available.
Density	0.96 g/ml at 20°C
Relative density	Not determined or not available.
Solubilities	Not miscible in water.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	32.9 cSt at 40°C; 5.85 cSt at 100°C
Explosive properties	Non-explosive
Oxidizing properties	No

Other information

SECTION 10: Stability and reactivity

Reactivity:

Does not react under normal conditions of use and storage.

Chemical stability:

Stable under normal conditions.

Possibility of hazardous reactions:

No dangerous reaction known under conditions of normal use.

Conditions to avoid:

Excessive heat. Avoid temperatures exceeding the flash point.

Incompatible materials:

Strong oxidizing agents. Strong Acids.

Hazardous decomposition products:

Carbon monoxide, Carbon dioxide.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

Page 4 of 8

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018

Page 5 of 8

(Trade Name) Synthetic Ester Fluid

Route	Result
Oral	LD50 >2000 mg/kg bw (calculated)
Dermal	LD50 >2000 mg/kg bw (calculated)

Substance data: No data available.

Skin corrosion/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Polyol esters	Based on data for similar substances may be slightly irritating, but not sufficient for classification.

Serious eve damage/irritation

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
1 -	Based on data for similar substances may be slightly irritating, but not sufficient for classification.

Respiratory or skin sensitization

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result	
Polyol esters	Not expected to be a skin sensitizer based on animal data for similar substances.	

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available. **Substance data:** No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Polyol esters	Not expected to be a germ cell mutagen. In vitro and in vivo tests did not
	show mutagenic effects in substances or similar materials.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
	A potential metabolite of the polyol esters identified has indicated a Lowest Observed Adverse Effect Level (LOAEL) of 100 mg/kg for fetal variations when tested in a concentrated form during an oral repeat dose developmental study in rats (non-guideline).

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018 Page 6 of 8

(Trade Name) Synthetic Ester Fluid

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
Polyol esters	Not expected to cause organ damage from a single exposure.

Specific target organ toxicity (repeated exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
	A No Observed Adverse Effect Level (NOAEL) of 300 mg/kg bw/day was identified for effects on blood and thyroid based on a 90-day oral repeat dose study in rats (OECD 408) with similar substance.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available. Substance data: No data available.

Information on likely routes of exposure:

Low toxicity if swallowed. Skin and eye contact may result in temporary irritation or no effect. At room temperature, exposure to vapor is minimal due to low volatility; vapor or mists from heated material or spraying may cause respiratory irritation.

Symptoms related to the physical, chemical and toxicological characteristics:

Repeated or prolonged skin contact may cause drying, reddening, itching and cracking. Eye contact may cause temporary redness, tearing, and blurred vision. If ingested, may cause gastrointestinal upset with possible nausea, vomiting and diarrhea.

Other information: No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data:

Name	Result
_ ·	Not expected to be harmful to aquatic organisms based on data for similar materials.

Chronic (long-term) toxicity

Product data: No data available. Substance data: No data available.

Persistence and degradability

Product data: No data available.

Substance data:

Name	Result
Polyol esters	Expected to be readily biodegradable based on similar materials.

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018

(Trade Name) Synthetic Ester Fluid

Bioaccumulative potential

Product data: No data available. Substance data: No data available.

Mobility in soil

Product data: No data available. Substance data: No data available. Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:

It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory agencies

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	
Bulk Name	None
Ship type	None
Pollution category	None

Page 7 of 8

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 09.10.2018

Page 8 of 8

(Trade Name) Synthetic Ester Fluid

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA): All ingredients are listed or meet exemption.

Significant New Use Rule (TSCA Section 5): Not listed.

Export notification under TSCA Section 12(b): Not listed.

SARA Section 302 extremely hazardous substances: Not listed.

SARA Section 313 toxic chemicals: Not listed.

CERCLA: Not listed. **RCRA:** See Section 13.

Section 112(r) of the Clean Air Act (CAA): Not listed.

California Proposition 65: Not listed.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-1-0 **HMIS:** 0-1-0

Initial preparation date: 01.18.2018

End of Safety Data Sheet